Communications Workers of America
AFL-CIO, CLC

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EX PARTE OR LATE FILED

March 17, 1998

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
1919 M Street N.W.
Washington, D.C. 20554

RE: Ex Parte Notice
CC Docket No. 97-211 (Applications of WorldCom and MCI for Transfer of Control of MCI to WorldCom)

Dear Ms. Salas:

On Friday, March 13, 1998 the Communications Workers of America (CWA) and the Consumer Project of Technology (CPT) sponsored a symposium at the Mayflower Hotel in Washington, D.C. entitled "The WorldCom/MCI Merger: Is the Internet at Risk?" The FCC staff listed below attended the symposium.

The presentations at the symposium focused on the following issues: competition in the Internet backbone market; peering and interconnection on the Internet; barriers to entry and switching backbone providers; and the impact of the merger on downstream Internet Service Providers, regional backbones, and consumers.

Symposium panelists and members of the audience analyzed the impact of the merger on the Internet marketplace. Some participants articulated their opposition to the merger because it would result in a dominant backbone carrier with the ability to set the terms and price of interconnection; others articulated support for regulatory intervention to ensure non-discriminatory interconnection and free flow of information in the Internet marketplace.

Attached are two copies of the conference packet including the conference agenda and speakers; printed text of opening remarks by CWA President Morton Bahr and by Ralph Nader; and a hard copy of the opening slide presentation on "Internet Backbone Competition" by Anthony Rutkowki. I also enclose one copy of an audiotape of the entire conference. The conference ran from 9:30 a.m. to 2 p.m.

In addition, I enclose two (2) copies of reports published by the Economic Policy Institute that were distributed at the symposium. The first report by Dan Schiller, *Bad Deal of the Century: The Worrisome Implications of the WorldCom-MCI Merger,* raises four concerns about the merger: Internet domination, impact on universal service, financial health of the merged entity,

and social and employment costs. The second report by Jeff Keefe, *Monopoly.com: Will the WorldCom-MCI Merger Tangle the Web*? focuses on the impact of the merger on the Internet backbone market.

In accordance with the Commission's rules, an original and one copy of this notice, as well as the materials mentioned above, are being submitted to the Secretary of the Commission for inclusion in the public record of these proceedings.

Sincerely,

Debbie Goldman

Debbie Goldman, Research Economist
Development and Research Department

Enclosure

cc:Bill Bailey, Eric Bash, Michelle Carey, Helen Domenci, Jim Earl, Jennifer Fabian, Joanna Lowry, Matt Nagler, Michael Nelson, Daniel Shiman, Johnson Garrett, Stan Trost

Remarks by Morton Bahr, President
Communications Workers of America
MCI/WorldCom Symposium
March 13, 1998 -- Mayflower Hotel, Wash., D.C.

On behalf of the 630,000 members of the Communications Workers of America, I want to welcome you to this conference and thank you for your participation.

We are here today to learn more about the MCI/WorldCom merger and what it means to us as citizens and working Americans.

When we leave here today, we hope that you will have a better understanding of why we believe this merger is bad for the nation and bad for the telecommunications industry.

Our concerns are shared around the world. Because of their international ties, WorldCom and MCI need the approval of the European Union to do business there as a merged company. Both companies expected this approval to be smooth sailing.

But as the financial details became clearer and the implications better understood, the European Union put the brakes on MCI/WorldCom. Now, they too, are going to take a much closer look at the deal and what it means to Europe.

As more information becomes known, and the people who are really getting rich off this deal are identified. Regulators and policymakers in the U.S. also are taking a hard look at this deal.

Some of you may wonder why a labor union such as CWA would be involved in a game of high finance. Why don't we, instead, concentrate on protecting and serving the interests of our existing members?

CWA is a union that stands on the frontiers of advanced technology. We are the leading union in the information age. Our members are responsible for the information superhighway - for building it, maintaining it and for much of the content that goes over it. And we help customers navigate their way onto it.

The professional, technical and white collar workers--both union and nonunion--who now comprise the majority of the workforce, look to us for guidance and leadership on how the information technology industries will emerge in the years ahead.

We take this responsibility seriously.

In 1996, Vice President Gore attended the CWA convention and gave our members a special charge. As the workers on the cutting edge of the information revolution, he said we needed to be active to explain to ordinary Americans how this technology will impact and change their lives.

CWA had always been concerned about the future of our industry. We are committed to insuring that the profit motive is balanced with the public interest as this industry develops.

We have accepted the challenge of working with other concerned organizations and citizens to block the MCI/WorldCom merger because it is not in the public interest, the interest of the industry, our nation or our members.

When we first started, many experts thought that we were just tilting at windmills. After I first read about the deal, in fact, I was shocked: How could one company buy MCI by just putting up paper? This is the largest merger in history. It is a deal valued at some $37 billion dollars.

Yet, WorldCom is using its stock to pay for eighty percent of MCI. Think about it.

A little revolution somewhere in the world. Another Asian shock. An interest rate hike by the Federal Reserve. Any of these things occurring and more, and the stock market could come tumbling down. Along with it goes WorldCom's stock value. WorldCom is a house of cards waiting to fall.

The news media tells the story that just before they closed the deal, MCI CEO Bert Roberts asked WorldCom CEO Bernie Ebbers for just a little more to sweeten the pot.

"Sure," Ebbers reportedly said. "Instead of $50 a share, let's make it $51 a share." Well, why not? It's just paper. This is a world that none of us will ever

understand. So, let's get down to the serious reasons why this deal is bad. There are four main issue that we are raising.

One: The proposed merger is anti-competitive. MCI is the world's largest Internet backbone provider. WorldCom already owns three of the other largest Internet backbone provider networks, including the second largest, UUNet.

After the merger, Worldcom will control more than 60 percent of the Internet, which is the key to communications infrastructure. Virtually the entire Internet backbone will be controlled by just two providers, with Sprint running a distant second behind WorldCom.

This is not healthy competition. Regulators have only a brief window of opportunity to prevent the concentration of ownership of the Internet from falling into the hands of a single owner.

Two: The proposed merger will slow competition in the local telephone market. MCI is the second largest long distance provider in the U.S. and, until this merger came along, was positioning itself to be the primary competition to the Bell companies in local service.

The loss of MCI means a retreat from greater competition and network expansion in local service. MCI/WorldCom's new plan will focus mainly on lucrative commercial customers at the expense of ordinary consumers.

Three: The proposed merger will harm universal service. A major goal of the 1996 Telecommunications Act was to foster access to information services for all Americans. MCI/WorldCom's strategy of going after business customers for its own network will divert revenues off the public network, increasing pressure for local rate hikes or degradation in service to residential customers.

Four: The proposed merger will not create jobs and could even reduce employment in telecommunications. The MCI/WorldCom merger will result in immediate job cuts.

Don't believe what MCI-WorldCom says about no major layoffs. Already, MCI has announced 1,500-merger related lay-offs. Worried MCI employees are calling CWA with rumors of more job cuts to come. There is just no way that WorldCom can achieve the necessary $20 billion in savings for the deal without cutting jobs.

In addition, MCI/WorldCom plans to reduce investment for local telephone

network development by $2.8 billion, which will result in a loss of employment growth by at least 75,000 jobs over the next two years. The 1996 Telecommunications Act was adopted to foster job growth, which the MCI/WorldCom merger clearly does not.

You are probably thinking: If this deal is so bad, how did it even see the light of day? The answer is simple: personal greed. For supporting the Worldcom merger, the top corporate officers of MCI stand to personally receive millions of dollars.

Here's what they will get when the deal goes through:

(List payouts to Roberts, et al)

You will hear more about these issues, and others, in greater detail during this conference. When you leave today, I hope you will have a better understanding of the MCI/WorldCom merger and why we and other concerned groups oppose it with such intensity.

Most importantly, when you leave today, please share what you have learned with others.

We must encourage ordinary Americans to make their voices heard on how the new information industries will develop in the future.

Federal and state regulators are writing rules that will implement the 1996 Telecommunications Act. Additional telecommunications legislation is pending in Congress. The courts will be making decisions on the new regulations.

Follow these events. There will be decisions made which will determine the outcome of the information revolution. As concerned citizens, we are faced with a unique opportunity to shape the outcome of these deliberations.

We can make a difference. We can start with blocking the MCI/WorldCom merger.

Have a successful conference and we look forward to working closely with you on these issues in the future.▫

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James Love <love@cptech.org> http://www.cptech.org. 202.387.8030
http://www.essential.org/antitrust/worldcom/worldcom.html

Statement of Ralph Nader
at Workshop on Worldcom/MCI Merger
Mayflower Hotel, Washington, DC
March 13, 1998

Thank you for attending today's seminar on the Worldcom/MCI merger. We would like to thank Debbie Goldman of the Communications Workers of America (CWA) and other officials of this union for their fine efforts in organizing today's event.

The Worldcom MCI merger is anticompetitive, and should be stopped. Two years ago the industry and its allies in Congress promised consumers a new era of competition in telecommunications. Today we are seeing a wave of mergers which are designed to avoid such competition.

Worldcom and MCI are very important competitors in long distance telephone service. Fillings in the current FCC proceeding indicate that Worldcom has played an important role in providing service to discount resellers, who have pushed long distance rates down. This merger will hurt consumers by reducing competition in that market. Telecommunications networks are growing, but demand is also growing. A merger such as this one not only limits today's level of competition, but inevitably leads to demands for other mergers. What's next, a merger between Sprint and Quest? Between AT&T and Sprint?

In this market, there are no benefits to huge mergers such as Worldcom/MCI. We prefer to see Worldcom challenge MCI head on for markets, rather than simply merge with the big three.

In the Internet market the problems are even more obvious. While experts disagree on how to measure market share for Internet backbone markets, there are many who say the merger will give Worldcom and MCI control over 40 to 60 percent of Internet backbone traffic. Today Worldcom and MCI are two of the largest competitors in the Internet backbone market. After the merger Worldcom and MCI will become the AT&T of Internet backbone traffic. Why would we want this to happen? And what types of anticompetitive practices could we expect from a new entity with this much market share?

We have heard from many smaller Internet Service Providers that Worldcom is currently engaged in discrimination against new Internet entrants, denying them the ability to enter into important peering agreements and forcing new anticompetitive terms on those who do peer with Worldcom. Worldcom is also ushering in a new era of secrecy agreements which stifle debate and dissent on policies that are fundamental to the future of the Internet. We will hear more about this from Dave Holub, Brian Bartholomew and other conference participants.

Bill Schrader, the founder and CEO of PSInet, has told us that Worldcom and MCI hope to follow the merger with new demands for pricing by the byte for Internet backbone traffic. The best model for Internet pricing is not one set by a telephone company that gains monopoly power in Internet backbone markets, but rather one that evolves from the actions of hundreds or thousands of ISPs, seeking to attract customers in a competitive environment.

The Internet is too important to society for us to permit a single firm to exercise too much control. This merger should be stopped.

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Internet Backbone Competition

Anthony M. Rutkowski
NGI Associates, Center for Next Generation Internet

WorldCom/MCI Merger: Is the Internet at Risk? Symposium

13 March 1998

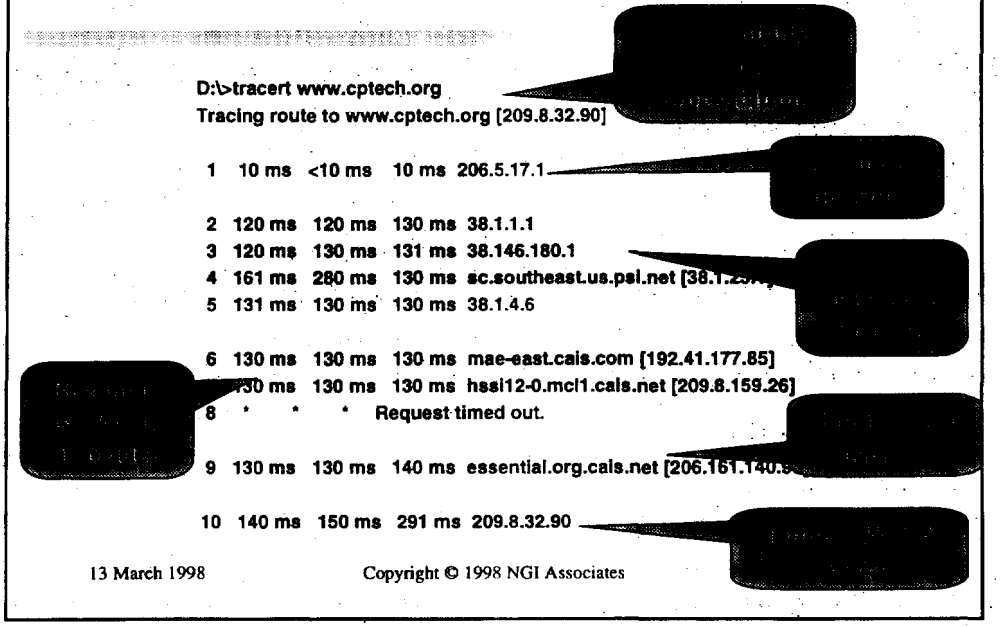
Topics

- **What is the Internet?**
- **What is a backbone?**
- **What is the market?**
- **Who are the providers?**
- **What appear as issues?**
- **Is the Internet "at risk?"**

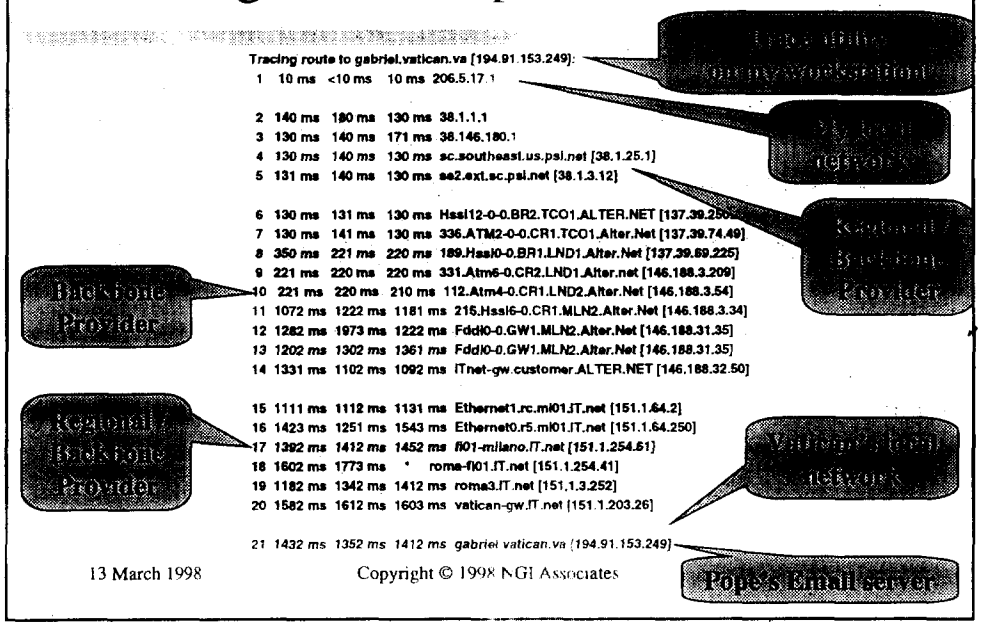
What is the Internet? Backbones?

- **There is no "Internet" per se - it is a means of autonomously sharing private resources: networks, computer hosts, applications**
- **Self organizing: ~ 1 million networks, ~30 million hosts, ~1.25 million WWW servers...**
- **Backbones: large-scale networks that provide open long-haul IP transport**

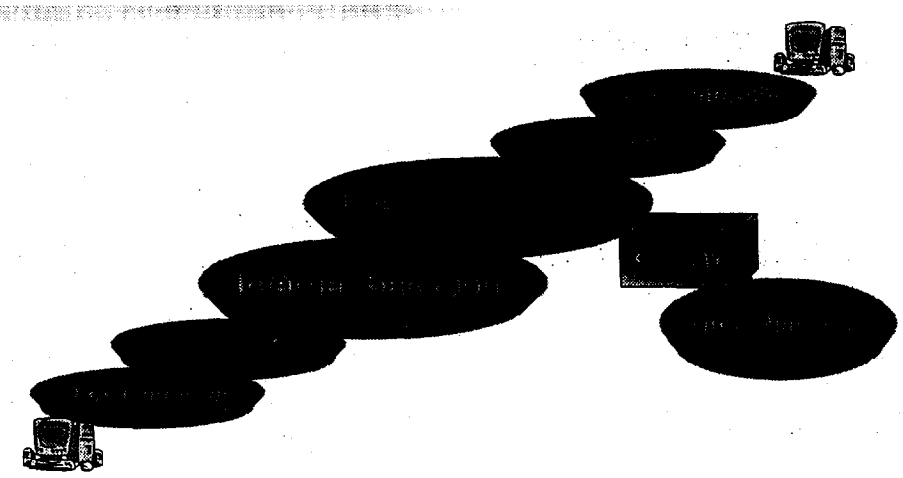
Getting to Jamie Love's WWW Server



Getting to the Pope's Mailbox



Internet basic architecture

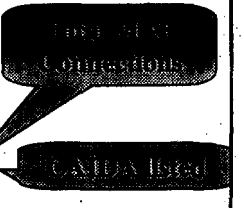


The Backbone Market

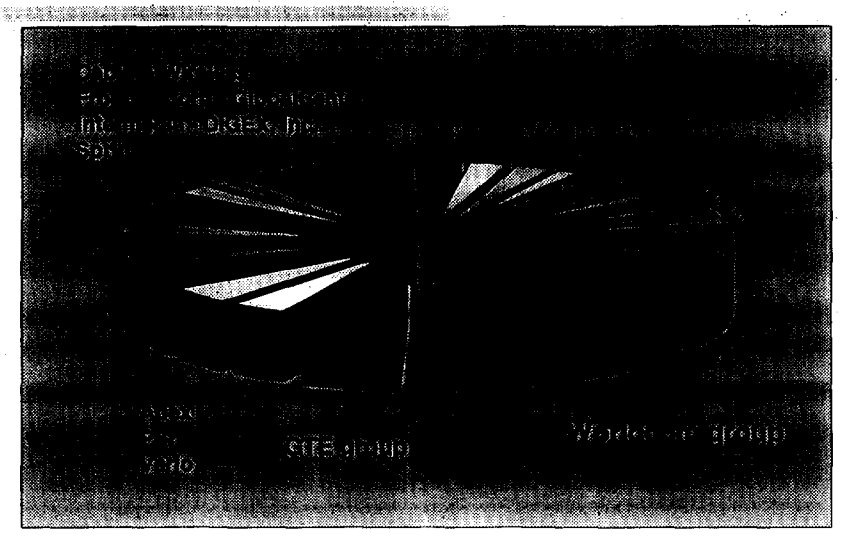
- Began in late 80s with PSI, UUNET, then Sprint
- Really emerged with NSFnet decommission in early 1995
- Includes NAP market
- Rapidly grew - now 36 US national backbones and xxx peering points
- No real international backbones
- Highly dynamic: technologies, operations, market, ownership
- Driven by underlying transport economics and market positioning
- Major new players emerging: LCI-Quest, Level 3, Oxygen

Current US Backbone Providers

@Home Network 2
AboveNet Communications, Inc. 3
America OnLine - Compuserve 2 C
American Communication Services, Inc. 2
Apex Global Internet Services, Inc 5 C
AT&T 3
Cable & Wireless 4 C
CGX Communications, Inc - CAIS Internet 3
ConXion Corp. 3
CRL Network Services 2 C
DataXchange Network, Inc 2 C
Epoch Networks, Inc. 2 C
Exodus Communications 3 C
Fiber Network Solutions, Inc 2
Frontier Corp - GlobalCenter 4 C
GeoNet Communications, Inc. 2 C
GridNet International 3 C
GTE (BBN, Genuity) 8 C
IBM Global Services 3 C
ICG Communications, Inc - NETCOM 2
ICon CMT Corp 3
IDT Corporation 2 C
Intermedia - DIGEX, Inc. 4 C
InterNex Business Services, Inc. 3
Nap.Net 2 C
Netrail 2 C
Priori Networks, Inc. 2
PSINet, Inc. 5 C
Sprint 4 C
TCG Cerfnet 3 C
Verio, Inc. 5
ViaNet Communications 2 C
Voicenet 2
Winstar Communications, Inc - Goodnet 2 C
Worldcom - (ANS, UUNET, MCI, MFS, MCI) 18 C



Backbone Provider MAE connections



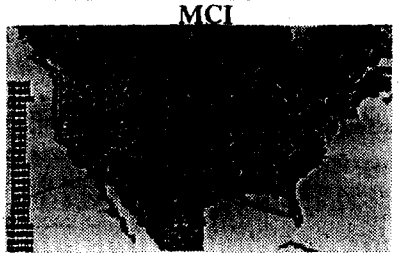
Providers by ISP connections

MCI	**1689**	**29.4%**
Sprint	**1298**	**22.6%**
WorldCom (UUNET, CIS, ANS)	**1091**	**19%**
AGIS	**354**	**6.2%**
BBN	**234**	**4.1%**
Digex	**114**	**2.0%**
CRL	**106**	**1.8%**
GoodNet	**75**	**1.3%**

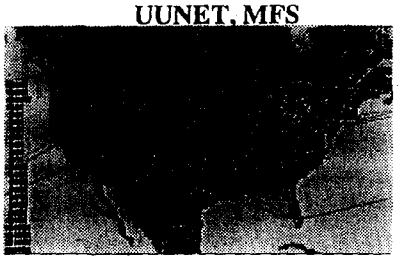
Source: Simply Internet, Inc, FCC Pleading

WorldCom Group Backbones

MCI



UUNET, MFS



ANS

Peering

- Peering is the method by which Internet providers interconnect their respective networks
- Peering has been based upon a basic assumption of the free transport of information packets over peer's networks
- Peering agreements are highly complex technical descriptions for the exchange of routing information implemented at network borders
- Peering can be multilateral or bilateral or both; multilateral peering is the poor ISPs friend
- There are significant economic, performance, and reliability consequences associated with peering
- Private peering arrangements often under NDA
- There are many different kinds of Internet traffic and providers, worldwide
- Reciprocal peering only works when common incentives exist regarding use of resources
- Exchange points: <http://www.isi.edu/div7/ra/NAPs/>
  - Public multilateral: MAE-East/West, Sprint NAP, Ameritech NAP, Pacbell NAP
  - Scores of private multilateral and bilateral points

What appear as issues?

- Scaling, scaling, scaling
- Internet telephony
- Industry restructuring
  - New infrastructure entrants
  - New aggregations
- Profits (getting eaten by scaling costs)
- Highly asymmetrical traffic flows
- Peering arrangements
  - Zero cost or not?
  - What arrangements?

Internet at risk?

- **Real problems are related to scaling**
- **Anticompetitive behavior could occur**
  - **Warrants further understanding, watching and analysis**
  - **A highly complex and dynamic market**
  - **What arrangements or conduct will pass/not pass public policy muster?**

Bad Deal Of the Century

The Worrisome Implications of the WorldCom-MCI Merger

by Dan Schiller

Economic Policy Institute

1660 L Street, NW, Suite 1200, Washington, D.C. 20036

ISBN: 0-944826-76-8

EXECUTIVE SUMMARY

The proposed $37 billion merger of WorldCom Inc. and MCI Communications Corp. would constitute the largest acquisition in business history. If allowed to proceed by regulators, it would combine the nation's two largest Internet "backbone" systems and two of America's top four long-distance companies.

The proposed merger raises serious antitrust and competitive issues that affect every U.S. consumer and business. The combined company will control 50% or more of the Internet infrastructure and one-quarter of the U.S. long-distance telephone market, raising concerns that approval of the merger will thwart the pro-competitive intent of Congress in passing the Telecommunications Act of 1996.

The combined WorldCom-MCI will control 50% or more of the Internet infrastructure and one-quarter of the U.S. long-distance telephone market.

WorldCom's bid to dominate the telecommunications industry rests on three strategic initiatives: privileged access to capital markets, a rapid increase in market power based on expanded control over the Internet backbone, and preferential service for high-volume business and well-off subscribers and neglect of the broader consumer market.

The key concerns raised by this report are the following:

- **The proposed merger is an attempt by WorldCom to develop market power over the Internet.** The merger would enable the combined company to dominate the Internet backbone and major network access points of the Internet, giving the company substantial power over the terms and pricing of Internet interconnection. This concentration of power would undermine the Telecommunications Act of 1996, which explicitly intended to promote competition in this critical sector. Indeed, some Internet service providers have already begun to protest that they will face additional levies as a result of the merger.

- **Marketing to high-volume users subverts the intent of the Telecommunications Act of 1996, which codified the objective of universal service for the first time in the nation's history.** WorldCom has gained its current market position through its dedicated pursuit of favored customer groups and an equally deliberate neglect of other subscriber market segments. A WorldCom takeover of MCI will only intensify this focus on business customers and on an elite stratum of high-volume individual users. By integrating the joint company's exclusionary local networks with its long-distance facilities and, specifically, with its tiered Internet services, the merger threatens to establish a freestanding infrastructure that is

largely separate from the inclusive public-switched network and that cherry-picks in favor of high-volume users.

- **The combined company's financial health is uncertain.** WorldCom's ability to wage battle for MCI rested upon its uniquely inflated share price and its established practice of financing acquisitions by using its strong stock as its chief currency. Since it was incorporated in 1972, the company that became WorldCom in 1995 used its common stock to acquire a succession of 20-odd local, long-distance, and Internet companies. Its $36.5 billion takeover offer valued MCI at nearly double the price the carrier had commanded just months before. A combined MCI-WorldCom faces worrisome financial issues, including an appreciably increased debt burden and the likelihood that an MCI under WorldCom management will not generate profits sufficient to justify the high price paid.

The changes from the merger would harm the nation's telecommunications system at exactly the moment when its health is most important to the overall well-being of the economy.

- **Consolidation of the two companies could impose serious social costs.** As noted above, the merger may reduce the resources available to modernize the publicly shared telecommunications network. In addition, an increase in market dominance by these two non-union carriers will affect labor relations practices in the industry and will exacerbate the push for lower wages.

MCI-WorldCom is a mistake waiting to happen. The combined company's financial health would be uncertain. Its prospective dominance over the Internet would crowd out rival vendors and imperil interconnection on nondiscriminatory terms. The premium services that it would target at high-volume business and elite residential users would come at the expense of other residential customers. Together, these changes would harm the nation's telecommunications system at exactly the moment when the health of that infrastructure is most important to the overall well-being of the economy. Regulators must address these concerns now, before a combined MCI-WorldCom consolidates its market dominance into an effective monopoly position.

INTRODUCTION

When AT&T rose to monopoly power early in the 20th century, it relied on a three-prong strategy: it used its privileged access to capital markets to acquire a number of would-be competitors; it exerted leverage over rivals it had not acquired by increasing its stranglehold on crucial communications technology; and it targeted high-volume users with preferential service offerings.

This scenario, carried out decades ago before effective, pro-competitive regulation protected the integrity of markets for consumers, may sound familiar. It applies equally well to WorldCom's bid to acquire MCI Communications Corp.

The proposed WorldCom-MCI merger raises serious issues that affect every U.S. consumer and business.

The proposed $37 billion WorldCom-MCI merger would be the largest acquisition in business history. If approved, it will create a telecommunications behemoth with revenues of $32 billion, a market capitalization of $60 billion, 63,000 employees, and one-quarter of the U.S. long-distance telephone market. The company will also control 50% or more of the Internet backbone, a system of high-capacity circuits and related facilities that are essential to carrying traffic across the global Internet.

The proposed WorldCom-MCI merger raises serious issues that affect every U.S. consumer and business. There are concerns that it violates antitrust laws, which are formulated to assure that no single company gains sufficient power to dominate a market. There are also concerns that it does not protect the public's interest and violates the pro-competitive intent of Congress in passing the Telecommunications Act of 1996.

Thus, the proposed WorldCom-MCI merger raises an important question: as the 21st century dawns, can the United States afford to risk the creation of a new telecommunications monopoly?

As this study shows, the answer is no.

The intertwined acquisitions and strategies involved in WorldCom's offer for MCI constitute an unlawful bid for market domination. WorldCom's proposed acquisition is overtly anti-competitive, and it calls for federal regulators to protect consumers and competitive markets by rejecting the merger.

THE DEAL AS FINANCE

In 1894, Bell's patents on the telephone entered the public domain. Literally thousands of independent service suppliers soon flooded the industry, putting an end to the Bell System's monopoly over telephone system development. AT&T attempted to reclaim its supremacy by rapidly expanding its network, and it raised the funds it needed by turning to outside sources of capital. Bond sales and, above all, issues of common stock pumped hundreds of millions of dollars into the company, and it was able to buy out leading local and toll network competitors as well as build up its ownership holdings. The company's total long-term debt ballooned from $10 million in 1899 to $211 million in 1908, and its authorized capital stock increased fivefold between 1900 and 1910, to $500 million.[1]

In the bidding war for MCI, as well as throughout WorldCom's corporate history, finance has played an unusually important and profoundly problematic role.

WorldCom's industry consolidation strategy has been no less reliant on finance. Sitting on stage alongside WorldCom executives at the Manhattan news conference announcing WorldCom's plan to acquire rival MCI was Thomas King, the Salomon Brothers banker most directly involved in the bid. Bankers rarely assume such visibility in the deals they help to arrange. In this case, however, such an elevated status was fitting: in the bidding war for MCI, as well as throughout WorldCom's corporate history, finance has played an unusually important — and profoundly problematic — role.

Incorporated in 1972, the company that became WorldCom in 1995 used its common stock to acquire a succession of 20-odd local, long-distance, and Internet companies. By mid-1997, WorldCom had suddenly emerged as a power in U.S. telecommunications.[2] About its next prospective takeover — that of MCI — Standard & Poor's declared that WorldCom was "primed to become the next telecommunications giant."[3]

The events that led to WorldCom's bid for MCI began in 1994. In that year, British Telecom acquired a minority ownership stake (20%) in MCI. The action marked a strategic shift toward transnational telecommunications system partnerships between leading U.S. long-distance companies and their overseas correspondents. It was soon followed by similar initiatives on the part of AT&T and Sprint. In November 1996, however, British Telecom raised the ante by offering $24 billion (including assumption of some $5 billion of MCI's debt) for the 80% of MCI that it did not already own. The U.S. Justice Department, the European Union, and the Federal Communications Commission (FCC) gave their assent to this prospective takeover. MCI reported in July 1997, however, that its ongoing attempts to expand into local telephone service in the U.S. were producing unexpectedly large losses, projected to reach approximately $800 million in 1997 alone.[4] Disturbed by

this development, major BT shareholders insisted that the deal be restructured.[5] In late August 1997, the merger's value was decreased by 22% to $19 billion; the proportion of the combined company to be owned by MCI investors was also significantly reduced, from 34% to 25%.[6]

The merger's sudden repricing shocked and angered the institutional investors that collectively held nearly half of MCI's stock.[7] "I don't know of any arbitrage firm that didn't have a big position in this deal," declared one anonymous investor.[8] Leading mutual fund managers also had jumped into the deal headfirst, making big bets that it would go through as initially projected. When the BT-MCI merger was renegotiated, these speculators' bids on the stock unraveled. Among the investors hit by the restructuring were the Soros Funds Management, Fidelity Investments (that held 43 million shares, amounting to 7.8%, of MCI stock), Lord, Abbett & Co. (4 million shares), and the large investment bank Salomon Brothers — which alone lost a reputed $100 million.[9]

WorldCom's takeover offer valued MCI at nearly double the price the U.S. carrier had commanded just months before.

In a story about the events that followed, the *Wall Street Journal* reported that "deal-makers flush with junk bonds" and other risky financial instruments were "storming that staid phone industry, where some of the biggest mergers in history have been hatched, prodded by investment bankers seeking to top one another's deals and fees."[10] There is no available evidence that any particular intermediary induced WorldCom to make an offer for MCI. Indisputably, however, MCI was "put in play" when, after prominent British investors continued to express anxieties about the renegotiated deal, MCI and British Telecom relaxed their merger agreement on October 16, 1997.[11] And it is equally certain that the financial terms of WorldCom's bid for MCI were laden with considerable downside risks.

WorldCom and GTE each made unsolicited attempts to acquire MCI, and their ensuing rivalry generated what one journalist called a "feeding frenzy...for investment bankers and lawyers." So many firms came to be involved as advisors and financiers that, at the high point of the action, "many of the industry's best analysts can no longer speak publicly about the deal because their firms are working on it."[12] Hoping to reap advising fees — valued at a minimum of $30 million — Salomon leapt in to assist in WorldCom's offer. "The only company with as much to gain from WorldCom's...bid for MCI apart from WorldCom itself may be Salomon Brothers," wrote the *New York Times*.[13]

WorldCom's (eventual) $36.5 billion takeover offer — which valued MCI at nearly double the price the U.S. carrier had commanded just months before — enlarged qualitatively upon WorldCom's established practice of financing acquisitions by using its strong stock as its chief currency. WorldCom's bid for MCI thus

was widely seen as a function of extraordinary stock market conditions. A Paine Webber analyst declared that "WorldCom would never have been able to pull off a deal like MCI if it weren't for the bull markets we've had."[14] A commentator in the *Financial Times* agreed, asserting that the battle for MCI "is about how the massive liquidity in the U.S. equity and debt markets is being used to float corporate takeovers that would have seemed unimaginable even in the go-go 1980s."[15] These claims are certainly valid. But, above and beyond the general conditions of the market, WorldCom's ability to wage battle for MCI rested upon its *uniquely* inflated share price.

If the deal closes as projected, MCI-WorldCom will face worrisome financial issues.

WorldCom boasts that it has provided investors with 55.8% annual return over the last eight years — orders of magnitude above the returns of other carriers (4.3% for MCI, 9.4% for BT, and 8.8% for GTE).[16] WorldCom's stock price accordingly multiplied to the point that, during 1997, the company had a price-earnings ratio double that of rival long-distance companies.[17] Institutional investors, which control over three-fifths of WorldCom's stock (as compared with just 38% of AT&T's today), have profited hugely from these holdings.[18] WorldCom's high-flying stock attested to the extraordinary love affair between the company and major investment analysts. The *New York Times* declared, for example, that "[t]he job of persuading Wall Street that WorldCom is up to the task of buying MCI will fall to Jack B. Grubman" — the same senior analyst who had earlier advised his clients to buy MCI, in hopes of profiting from British Telecom's bid.[19] Wall Street's goodwill, however, testified not to WorldCom's stellar record of building a qualitatively enhanced telecommunications infrastructure but to a risky attempt at industry consolidation that threatens the overall course of U.S. telecommunications development.

WorldCom's stock-denominated offer was — and is — fraught with uncertainty. What if, for example, WorldCom's stock price were to decrease suddenly before its takeover offer closed? The offer employs a device called a "collar": if WorldCom's shares continue to trade between $29 and $41, then the terms of its bid are guaranteed. If its share price trades below $29, however, MCI shareholders will have to be given additional WorldCom stock. Shareholder approval might, or might not, be forthcoming at this altered stock price. On November 12, 1997, WorldCom's stock price did tip nominally below $29 a share.[20]

If the deal closes as projected, on the other hand, MCI-WorldCom will face worrisome financial issues. MCI's capital investment totaled around $3.9 billion during 1997, up from $3.3 billion in 1996 and $2.9 billion in both 1995 and 1994.[21] Under its new debt burden, would the combined firm be able to continue investing at this earlier level?

WorldCom claims that the deal will result in cost savings of some $20 billion over five years, enough to underwrite a 20% earnings increase during its first full year of merged operations.[22] But the company will have to pay an estimated $1.1 billion in annual pretax interest, on an appreciably increased debt burden.[23] If for any reason the combined company's stock price falls substantially, then the institutional investors who have been at this deal's center stage from the outset will not be slow to demand that measures be taken to improve MCI-WorldCom's bottom-line performance. WorldCom's singular dependence on Wall Street's goodwill increases the risk that such cost cutting will move into the terrain of productive capital investment and employment.[24]

Thus, this caution by a writer for the *Financial Times*, a publication that is hardly given to questioning the propriety of the unfettered free market:

> What happens if the financial projections on which such gigantic financial structures are founded prove over-optimistic, and...Mr Ebbers is unable to make a merger with MCI work?
>
> There is little room for error. Based on the high value placed on WorldCom's stock, Wall Street expects a combined WorldCom/MCI to enjoy a premium rating on the stock market that will set it apart from every other large telecom company. Any suggestion that his company was gravitating to the merely ordinary would be devastating.[25]

Is an MCI under WorldCom management capable of generating profits sufficient to justify paying nearly double the price it could garner in August 1997? MCI's single largest shareholder, British Telecom (holding 20% of MCI's outstanding stock) insisted on summarily cashing out its share holdings for $7 billion in cash. Does the United States wish to attach its information economy's most critical emergent infrastructure — the telecommunications system — to such uncertain financial moorings? The industry consolidation strategy on which the deal is predicated gives further reason for skepticism.

If the combined company's stock price falls substantially, then the institutional investors who have been at this deal's center stage will not be slow to demand that measures be taken to improve bottom-line performance.

THE DEAL AS SYSTEM DEVELOPMENT: THE INTERNET AND THE TELECOMMUNICATIONS INFRASTRUCTURE

During the first 15 years of the 20th century, AT&T attempted to use its growing control over the technology of long-distance transmission to build a nationwide monopoly.[26] Today, as the telecommunications infrastructure undergoes what is arguably its most significant transformation since that time, WorldCom is following in AT&T's footsteps — through its attempt to develop market power over the Internet. WorldCom's bid for market dominance thus must be placed within the context of institutional and technical change that has engulfed telecommunication as the Internet's role has grown.

WorldCom is following in AT&T's footsteps — through its attempt to develop market power over the Internet.

Although the shift toward data as opposed to voice carriage commenced many years ago, it has rapidly accelerated during recent years, owing principally to the growth of the Internet. Indeed, for the fourth quarter of 1997, MCI reported that half of its revenue growth came from Internet and data services. The latter in turn already accounted for more than $3 billion of its $5.11 billion in total quarterly revenues.[27]

The Internet is an astonishingly versatile system, capable of supporting an increasingly diverse range of communication modes. For example, the world's estimated 70 million fax machines have traditionally passed images to one another over the public-switched telephone network.[28] Today, however, fax-over-Internet (IP) service appears on the verge of usurping this market segment. WorldCom's Internet subsidiary, UUNet (acquired in 1996), deploys its global Internet backbone network to support a high-security fax service — priced at about half the rate of phone-based faxes. WorldCom Chief Operating Officer John Sidgmore predicts that the first commercially significant business telecommunications service to cross over to the Internet will be faxing. The significance of this change may be gauged when we learn that faxes presently constitute half of international phone call volume.[29]

The core market around which the public switched network is built — voice service — also is not immune to a similar service migration. Though the quality of "voice over IP" services has historically been poor, it has improved, rendering the Internet an increasingly effective rival to conventional forms of voice carriage. The threat of Internet telephony stems, most immediately, from the business users who account for a disproportionate share of overall telecommunications demand — and who, primarily to realize cost savings, have moved rapidly to add IP telephony to their existing internal data networks.[30] Trying to reclaim market leadership, established carriers like AT&T have declared that they will furnish Internet

telephone services at prices well below established long-distance rates.[31] Thus, Internet telephony is poised to assume an increasing share of public telephone traffic. How much and how fast remains unclear.

A raft of additional services — from well-established e-mail to still-emerging Web video, and from inter-corporate electronic commerce to consumer transactions on the Web — are also changing the Internet's impact on the established telecommunications industry. The Internet is increasingly seen as constituting the basic infrastructure for messages originating in any mode or genre.

This transition, however, involves significant structural change in the technology and policy of telecommunications. The Internet overlaps the physical infrastructure of the telecommunications system, but it simultaneously alters the latter's mode of operation. As established transmission facilities are enhanced with specialized routers and other instrumentation, a suite of protocols known as TCP/IP is used to transform the underlying network's functionality. The technology used by the established telecommunications system is "circuit switching," whereby a switch allocates and holds open a specific pathway, or circuit, for the duration of any given call. The structural technology of the Internet — "packet switching" — is different. Using TCP/IP, messages are chopped up into packets, each of which is addressed and routed individually across the network, before being reassembled in the correct sequence at the ultimate destination. The great economic advantage of packet switching is that, by permitting more extensive sharing of network resources, it affords greater cost efficiency. "Packet-switched networks," declared then-FCC Chairman Reed Hundt, "will soon carry most of the country's bits, and that will change the economics, the structure, and just about everything else about the telecommunications industry."[32]

Internet telephony is poised to assume an increasing share of public telephone traffic.

Yet perhaps Hundt has overdrawn the extent of the collision between the Internet and the conventional telecommunications system. Substantial rearrangement and augmentation of the Internet's packet-switched architecture will be needed before the full range of services afforded by established circuit-switched networks can be effectively integrated. In the meantime, carriers can try to get ahead of the process by assimilating key elements of Internet technology into their existing networks. For the foreseeable future, the ability to control and deploy both packet-switched data networks and circuit-switched voice networks will remain critical. The carriers' attempt is to mesh the rival technologies in order to retain the ability to provide a comprehensive array of service offerings to leading customers.[33] "If you don't control network assets from voice to Internet in the future, you don't have a prayer of being a significant global player," sums up one industry analyst.[34]

Beyond this, it is difficult to see. No consensus has emerged on economic

models of Internet cost allocation or effective service pricing,[35] in part because the Internet remains highly dynamic, even volatile: the process of system development is nowhere near the point of stability. Therefore, no one business model for the provision of a given service has established long-term viability, let alone dominance. In part, the wide gaps in knowledge are a function of the Internet's status as a decentralized, layered system, beholden to no single centralized authority and building not only on the existing public telecommunications infrastructure, but also on proprietary local area networks.

The established carriers are likely to enter a widening range of other Internet markets, including billing, domain name registration, directory, and other services.

The economic bases of Internet services may remain opaque, however, and the system's growing strategic centrality cannot be doubted. Control over the Internet would confer unique advantages. It is for this reason that the established carriers, at every level from local to transnational, are diversifying into Internet markets.

Systems integrators — organizations that contract to set up and manage business computer networks on an outsource basis — constitute one widening avenue of carrier involvement with the Internet. MCI diversified into systems integration by acquiring Canada's SHL Systemhouse, at a cost of $1 billion, in late 1995.[36] The established carriers are also likely to enter a widening range of other Internet markets, including billing, domain name registration, directory, and other services. But the principal escalation of carrier involvement with the Internet is occurring through their direct forward integration into Internet service provision. Carriers have entered this market in two chief ways: as retailers and as wholesalers. Each is considered briefly below.

Internet service providers (ISPs) manage the retail link with Internet customers, providing connection to the system for a subscription fee and offering various other services. ISPs may be either small or large, and range in scope and orientation. Examples include huge local telephone companies (such as Bell Atlantic), commercial on-line services (such as MSN and AOL), long-distance carriers with abundant local "points of presence" (such as AT&T), and local, not-for-profit organizations. The average number of subscribers per ISP, though it is increasing, is still scarcely 3,000, and there were at last tally some 4,000 ISPs operating in the United States.[37]

It is an open question whether companies that enter the ISP market (and their subscribers) have been privileged to do so at subsidized rates. Under federal regulations introduced in 1983, U.S. ISPs have been repeatedly classed as unregulated providers of "enhanced" service.[38] This designation exempts ISPs from the per-minute interconnection charges that are levied on other long-distance systems that tie in with incumbent local telephone networks. As a result of this sustained federal policy, it is arguable that ISPs enjoy a substantial cross-subsidy that is borne by ordinary voice